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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,713	10/19/2001	Reinhold Goebmaier	Q64444	6063

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EXAMINER

MAYO III, WILLIAM H

ART UNIT PAPER NUMBER

2831

DATE MAILED: 11/20/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/981,713

Applicant(s)

GOEBLMAIER ET AL.

Examiner

William H. Mayo III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 9-14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in Paper No. 6 is acknowledged. Claims 9-14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in present Application No. 09/981,713, filed on September 26, 2002.

Drawings

3. The drawings are objected to because Figure 2 lacks the proper cross-hatching, which indicates the type of materials, which may be in an invention. Specifically, the cross hatching to indicate the conductor and insulation materials are incorrect. The applicant should refer to MPEP Section 608.02 for the proper cross-hatching of materials. Correction is required.
4. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect may be deferred until after the examiner has considered the proposed drawing correction. Failure to timely submit the proposed drawing correction will result in the abandonment of the application.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Regarding claim 1, the phrase "and/or" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention or a option to the previous claimed limitations. Specifically, the actual metes and bounds of the invention cannot be determined because it is unclear whether the claim limitations following the term "and/or" are inclusive or not.

8. Claim 1 recites the limitation "the first layer" in lines 3 & 4, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "a first glass and/or mica containing layer" or introducing a new first layer. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new first layer, then he/she should make the term more distinguishable.

9. Claim 1 recites the limitation "the strips" in line 6, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "at least two longitudinal strips" or introducing a new strips. If the applicant is referring to the previous mentioned term, then he/she should recite the term with

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consistency. If the applicant is referring to a new strips, then he/she should make the term more distinguishable.

10. Claim 3 recites the limitation "the strips" in line 6, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "at least two longitudinal strips" or introducing a new strips. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new strips, then he/she should make the term more distinguishable.

11. Claim 3 recites the limitation "the glass filament strip" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim because there has not been any previous reference to a glass filament strip in previous lines of the claims.

12. Claim 4 recites the limitation "the first layer" in line 2, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "a first glass and/or mica containing layer" or introducing a new first layer. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new first layer, then he/she should make the term more distinguishable.

13. Claim 4 recites the limitation "the thread" in line 6, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "at least one strip or thread" or introducing a new threads. If the applicant is referring to the previous mentioned term, then he/she should recite the term

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with consistency. If the applicant is referring to a new threads, then he/she should make the term more distinguishable.

14. Claim 6 recites the limitation "the first strip" in line 2. There is insufficient antecedent basis for this limitation in the claim because there has not been any previous reference to a first strip in previous lines of the claims.

15. Claim 6 recites the limitation "the second strip" in line 3. There is insufficient antecedent basis for this limitation in the claim because there has not been any previous reference to a second strip in previous lines of the claims.

16. Claim 7 recites the limitation "the strips" in lines 1-2, which is confusing and renders the claim indefinite. It is unclear whether the applicant is referring to the previous mentioned "at least two longitudinal strips" or introducing a new strips. If the applicant is referring to the previous mentioned term, then he/she should recite the term with consistency. If the applicant is referring to a new strips, then he/she should make the term more distinguishable.

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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18. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

19. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Gase et al (Pat Num 3,823,255, herein referred to as La Gase) in view of Arroyo et al (Pat Num 4,510,348, herein referred to as Arroyo). La Gase discloses an insulated conductor (Figs 1-2) directed to a flame retardant and radiation resistant control (Col 1, lines 5-8). La Gase discloses an insulated conductor (10) with preserved functionality in case of fire (Col 1, lines 5-8), comprising a metallic conductor (11), a first glass and mica layer (12-14) applied to the conductor (11) and a second plastic layer (15 & 21) sheathing the first layer (12-14), wherein the first layer is made of at least two strips (12 & 14) of glass and mica (Cols 3-4, lines 35-57 & lines 30-35, respectively), that may be applied longitudinally (Cols 3-4, lines 53-56 and 40-41 respectively) to the conductor (11), wherein the strips (12 & 14) have a width and overlap each other (Fig 2). With respect to claim 2, La Gase discloses that the at least one strip (21) may be made of high tensile, flame resistant material (Cols 4-5, lines 67-68 and 1-9) that may be helically wrapped around the first layer (12-14). With respect to claim 3, La Gase

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discloses that the strips (12 & 14) may be made of glass filaments with mica particles (Col 3, lines 35-53) that are bonded to the glass filament strips with silicon resin (Col 3, lines 48-53). With respect to claim 4, La Gase discloses that the at least one strip (21) that is wound onto the first layer (12-14). With respect to claim 5, La Gase discloses that the two strips (12 & 14) of high tensile flame resistant material are made of glass filaments (i.e. mica, Col 3, lines 35-53). With respect to claim 6, La Gase discloses that the two strips (12 & 14) have an overlap (Fig 2). With respect to claim 7, La Gase discloses that the strips (12 & 14) of the first layer (12-14) are made of glass and mica, wherein the mica layer faces the conductor (11, Col 3, lines 45-53, Fig 2). With respect to claim 8, La Gase discloses that the conductor (11) is at least two stranded conductors (Col 3, lines 31-33).

However, La Gase doesn't necessarily disclose the strips of the first layer being selected to have an overlap by at least 50% (claim 1), nor the second layer comprising at least two strips having an opposite direction of lay (claim 4), nor the first strip and the second strip of the second layer being offset by 180° (claim 6).

Arroyo teaches a cable (Figs 1-5) having superior resistance to flame spread and smoke evolution (Col 1, lines 5-6). Specifically, with respect to claim 1, Arroyo teaches a cable (Figs 1-2) comprising a plurality of insulated conductors (23) comprising a metallic conductor (center of 23), a first glass and mica layer (31) applied to the insulated conductors (23), and a second plastic layer comprising at least two strips (51 & 52) that sheath the first layer (31), wherein the second plastic layer (51 & 52) are helically wrapped with an overlap of at least 50% (Col 4, lines 27-30). With respect to

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claim 4, Arroyo teaches that the second plastic layer (51 & 52) comprises at least two strips (51 & 52) that may be wrapped in opposite directions (Col 4, lines 27-30). With respect to claim 6, Arroyo teaches that the first strip (51) and the second strip (52) of the second layer (51 & 52) are offset by 180°.

With respect to claims 1, 4, & 6, it would have been obvious to one having ordinary skill in the art of cables at the time the invention was made to modify the at least one strip of the second layer of La Gase to comprise the at least two strip configuration as taught by Arroyo because Arroyo teaches that such a configuration delays the conduction of heat to the core which decomposes the conductor and insulation, thereby controlling smoke emission and further flame spread during a fire of the cable (Col 5, lines 60-65).

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Arroyo et al (Pat Nums 4,319,940 & 4,510,348) and Leon, Jr. et al (Pat Num 4,514,466), all of which disclose cables having improved flame retardant characteristics.

Communication

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (703)

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306-9061. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (703) 308-3682. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3431 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

A handwritten signature in black ink, appearing to read 'William III', with a stylized flourish at the end.

WHM III
November 18, 2002